

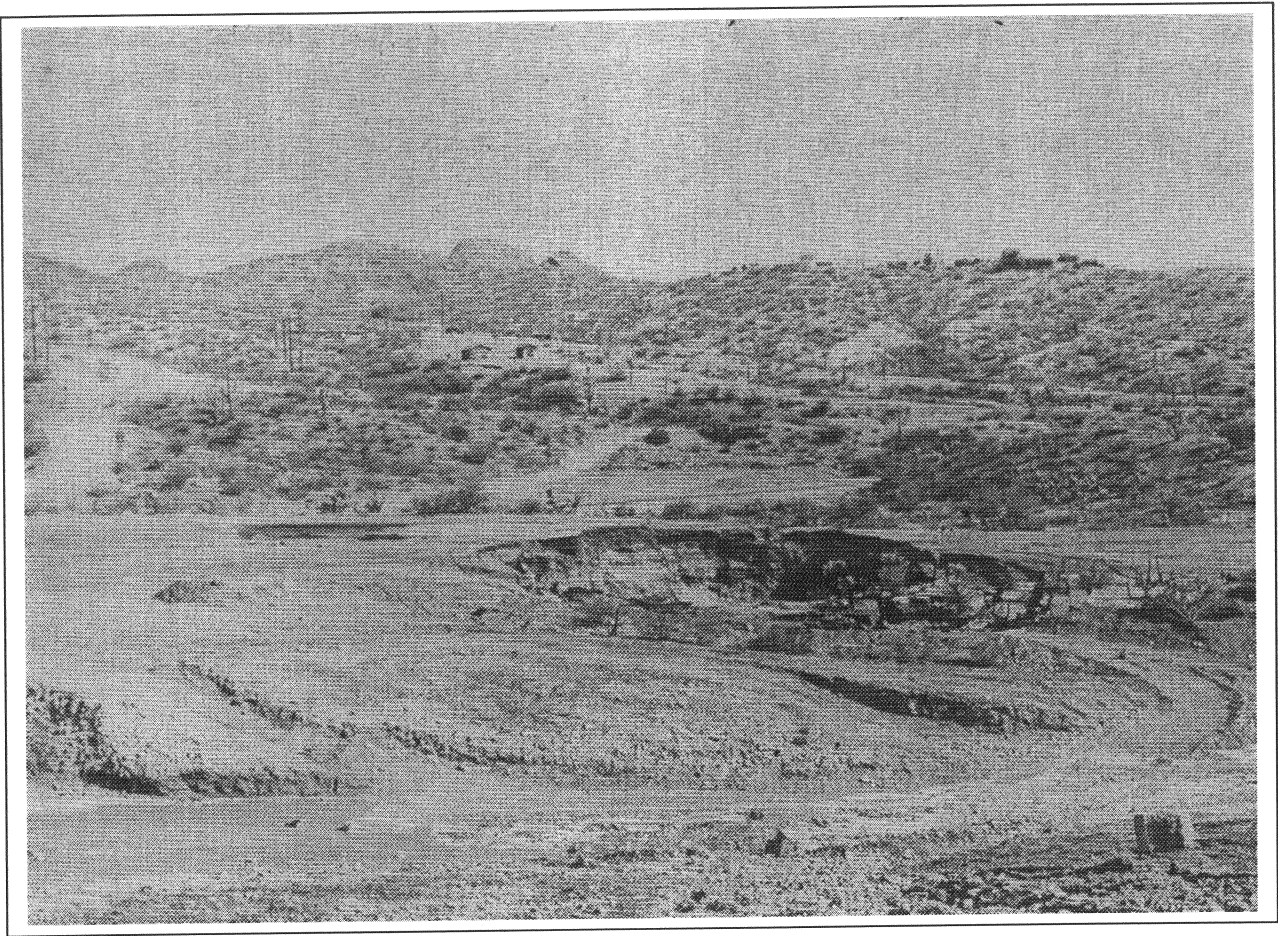
SUBSIDENCE

At San Manuel

Photo Images Courtesy of L. A. Thomas, Allen Hatheway, and The Arizona Department of Mines and Mineral Resources & BHP Copper

The following sequence of Images illustrates the development of surface subsidence at the San Manuel Mine in the period between 1956 and 1996.





First Subsidence - 1956

The initial breakthrough to the surface caused by draw from the 1415 level of the San Manuel Mine occurs on June 16, 1956 when an area about 100 feet in diameter holed through, with the “plug” dropping approximately 30 feet. The hole was located over the west side of Block 9-1, which had been in production for 135 days at the time of collapse.

Concentric tension cracks (visible in the photo) immediately formed around the hole. Vertical distance from the 1415 level to surface was 1120 feet.

View is looking northerly across one of the Red Hill housing areas, which was still occupied at the time. Tiger town site lies behind the ridge with the houses and the top of the Collins Glory Hole is visible as the twin peaked hills on the left-central skyline.



PLATE VI

AERIAL VIEW OF SUBSIDENCE AREA

DATE FEB. 15, 1957

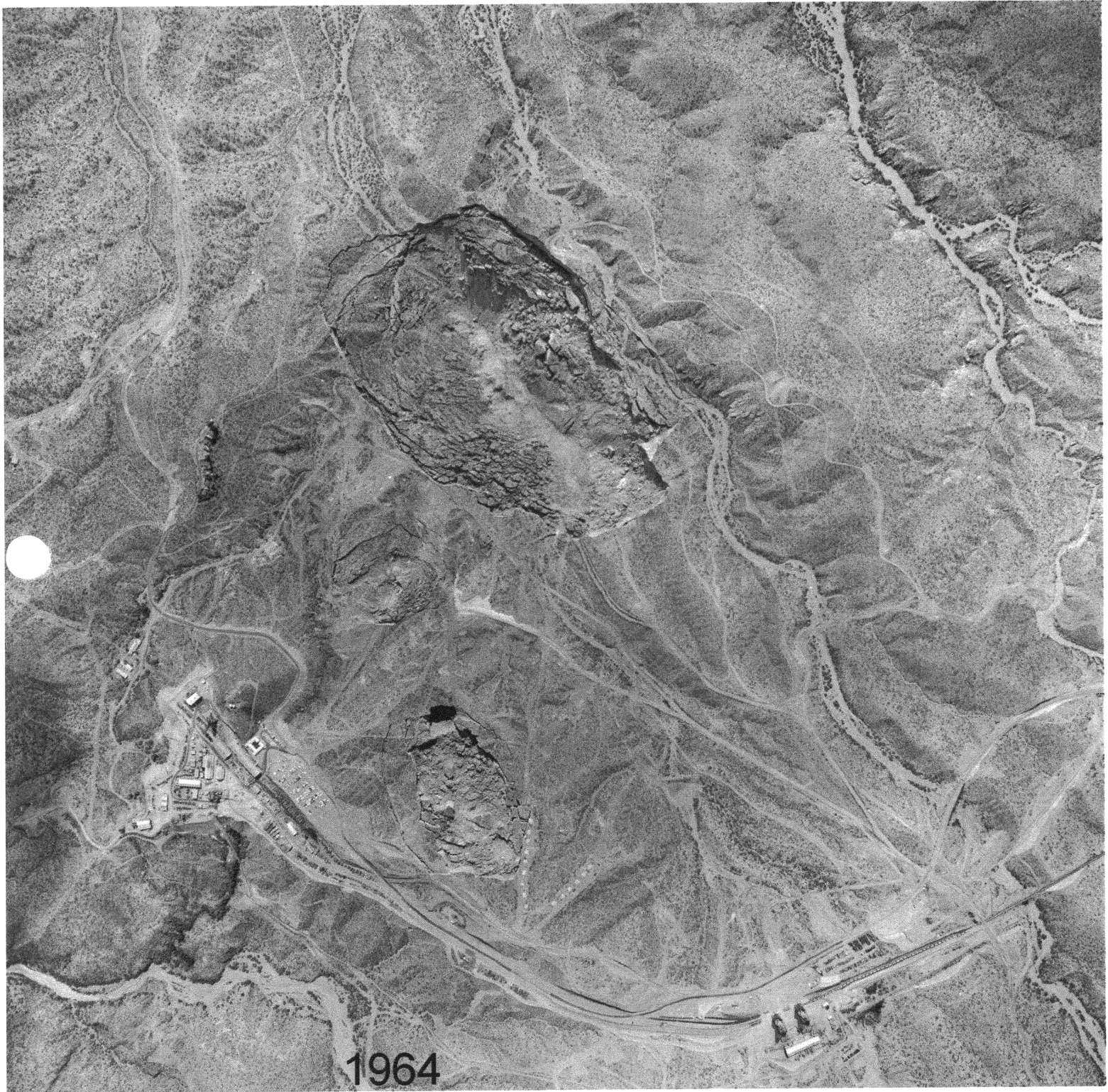
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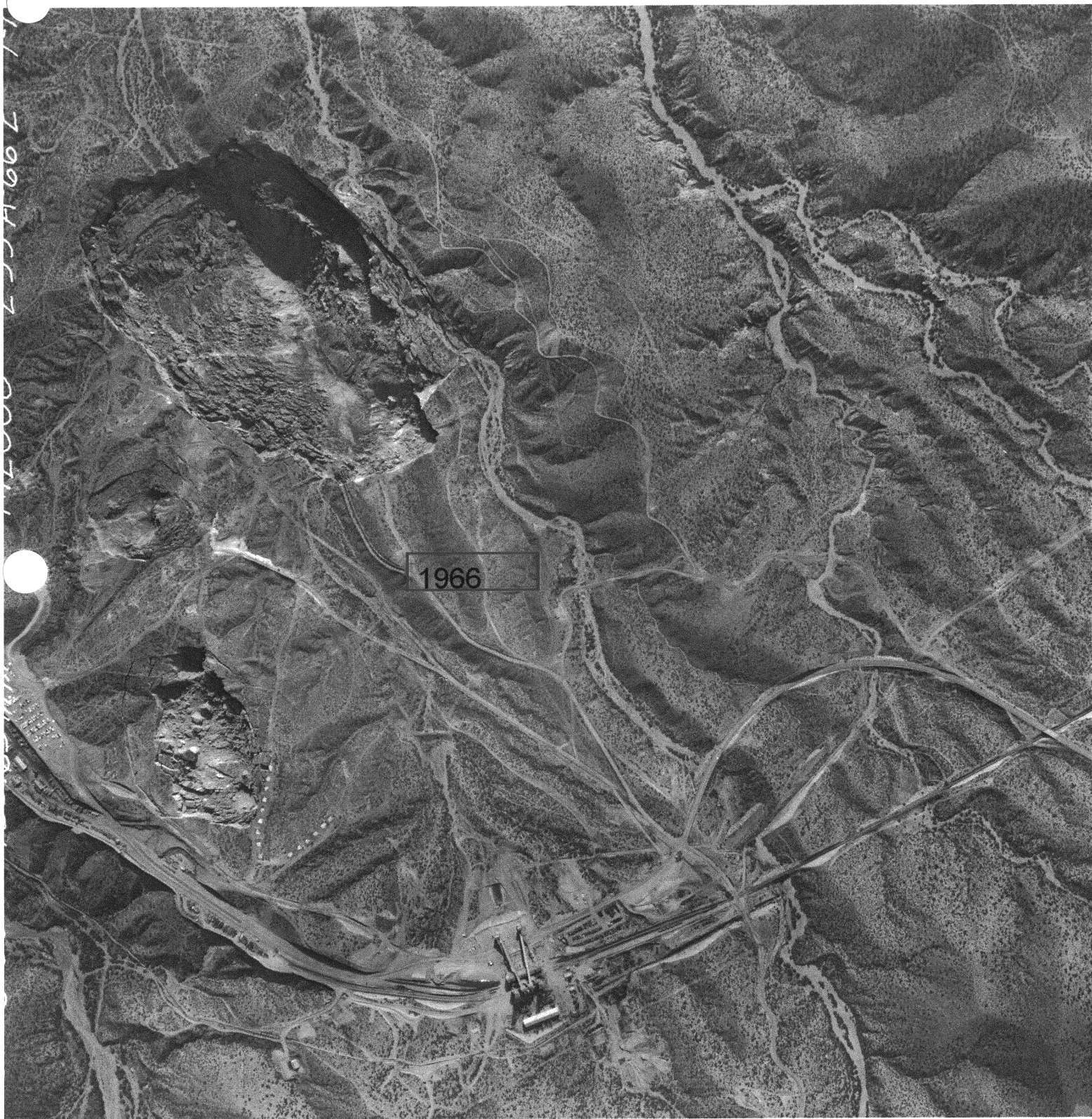


1964



1964





1966



1973



1983

